

## **ABSTRACT OF THE DISCLOSURE**

## VOLUME TRANSLATION APPARATUS AND METHOD

5 A volume translation apparatus and method are  
provided. The volume translation apparatus resides  
between host machines and the physical storage devices  
accessed by the host machines. This volume translation  
apparatus may perform volume translation for the control  
10 path and optionally the data path of input/output (I/O)  
requests sent by the host machines to the physical  
storage devices. Control path translation ensures that  
the correct physical volumes are mounted for accessing by  
the I/O request. Because the physical volume may be  
15 different from that requested by the host machine  
application, the translation device includes a mapping  
that represents which physical volumes represent copies  
of the virtual volume used by the host machine  
application. When an I/O request is received and is  
20 directed to a particular original virtual volume, the  
volume mapping apparatus translates the original virtual  
volume identification into one or more physical volume  
identifications associated with a secondary virtual  
volume which may or may not be the same as the original  
25 virtual volume.